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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,103	01/10/2002	Andras Fazakas	FAZAKAS-1	6118

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HANDAL & MOROFSKY
80 WASHINGTON STREET
NORWALK, CT 06854

EXAMINER

TIBBITS, PIA FLORENCE

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of References Cited	Application/Control No. 10/031,103	Applicant(s)/Patent Under Reexamination FAZAKAS, ANDRAS	
	Examiner Pia F Tibbits	Art Unit 2838	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6114839	09-2000	Takano et al.	320/150
	B	US-5864224	01-1999	Takechi et al.	320/152
	C	US-5410238	04-1995	Ishizuka et al.	320/150
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Office Action Summary

Application No.

10/031,103

Applicant(s)

FAZAKAS, ANDRAS

Examiner

Pia F Tibbits

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the conventional names, as described in the specification, e.g. battery, charging circuit, controller, etc. for the elements B, CH, SK, etc., shown in figures 1-7 with non-conventional symbols.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show element R1 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the OR gate, the mode selector input must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "S1" has been used to designate both a manual switch and a relay switch in fig.1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. For example:

a) the specification should be in proper idiomatic English and compliance with 37 CFR 1.52(a) and (b) is required.

b) on page 4, line 10 the number of the figure drawing was omitted.

c) on page 4, lines 15-19 the statement " The base of the transistor T1 receives through (?)... from line L1" is confusing.

d) on page 4, lines 15-19 the statement " This condition will not be true for false(?) or completely discharged batteries only..." is confusing.

e) The entire disclosure, i.e., specification, abstract and claims is replete with grammatical and idiomatic errors too numerous to mention specifically. The entire disclosure should be revised carefully. Depending on the number of changes made to the entire disclosure to correct the grammatical and idiomatic errors, it may be more efficient to file a substitute specification in accordance with MPEP 608.01(q). If applicant decides to do so, the substitute specification filed must be accompanied by a statement that it contains no new matter. Such statement must be a verified statement if made by a person not registered to practice before the Office.

Claim Objections

7. Claim 1 is objected to because of the following informalities:

Claim 1: in line 6, ---an actual temperature--- to replace "the actual temperature" in order to provide proper antecedence.

in line 7, ---a highest permissible battery temperature--- to replace "the highest permissible battery temperature" in order to provide proper antecedence.

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in line 8, ---a battery voltage--- to replace "the battery voltage" in order to provide proper antecedence.

in line 9, ---a charging current--- to replace "the charging current" in order to provide proper antecedence.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim 1: in line 5, the statement "said conditions comprise at least the condition of" is confusing since the conditions are enumerated and connected by "and";

in lines 18 and 19, "said conditional prohibition circuit is associated with every one of said prohibition conditions" is confusing, since it is not clear which are the prohibition conditions.

Claim 3: "final stop circuit" lacks antecedence.

Claim 4: "a respective one of said conditions" is confusing since numerous conditions are enumerated in claim 1, upon which claim 4 is dependent.

"the control input of a switch R1" is confusing because a) it lacks antecedence, and b) there is no switch R1 described in the drawings.

"the main circuits" lacks antecedence.

Claim 5: "the OR gate " lacks antecedence in the disclosure.

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Claim 7: "the battery voltage to enable manual starting" is totally incomprehensible, since "manual starting" implies human, and not battery intervention.

Claim 8: "alternating power with variable flowing angle" is confusing and lacks antecedence in the disclosure.

The above are but a *few* specific examples of indefinite and functional or operational language used throughout the claims, and are only intended to illustrate the extensive revision required to overcome the rejection under 35 USC 112, second paragraph. The above-mentioned corrections therefore, are in no way a complete and thorough listing of every indefinite and functional or operational language used throughout the claims. Applicant is required to revise all of the claims completely, and not just correct the indefinite and functional or operational language mentioned. The following art rejections are given in view of the above rejections of claims under 35 USC 112, second paragraph. Therefore, the following art rejections are applied only as far as the claims are understood in view of rejections made under the second paragraph of 35 USC 112.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

12. Claim 1, as best as it can be understood at this time, is rejected under 35 U.S.C. 102(e) as being anticipated by **Takechi et al.** [hereinafter Takechi][5864224].

Takechi discloses a method for charging a secondary battery and a charger by which it can be prevented that a secondary battery is charged at very high or low temperature, and that the secondary battery is charged for a long time. Therefore, the secondary battery is prevented from being damaged, so that the lifetime can be prolonged. The patent discloses a generally constant current supplied from a charging means to the secondary battery. The constant-current charging is stopped when voltage of the secondary battery has reached a peak value after passage of a predetermined time period from start of the supplying of the first current; temperature of the secondary battery has been out of a predetermined range; or a predetermined time period has passed since start of the supplying of the first current. Fig.6 describes that a complementary charging is added. That is, after Step S6, the voltage of the secondary battery is measured and it is decided as to whether the voltage reaches a certain usage-startable level or not at Step S9. If the decision is made that the voltage is less than this level, the routine returns to Step S4, so that the main charging at the constant current of 1.5 A is conducted again in order to complement the charging. The routine does not proceed from the second main charging at 1.5 A to Step S5. Instead, it proceeds from the second main charging to Step S5 if the voltage-drop ΔV or the finishing temperature T_3 °C has been detected, or if the prescribed time t_1 has passed since the restart of the main charging at 1.5 A. On the other hand, if the battery temperature falls to be below T_1 °C in the second main charging of Step S4, the routine proceeds to Step S9 for ending. In the third embodiment, the detection-delay timer is also used, and in a certain time period after the restart of the charging, it is omitted to detect the voltage-drop ΔV and to detect the battery temperature. Takechi does not disclose specifically a prohibiting circuit comprising a conditional and final prohibition circuits, a restart circuit.

With regard to the limitations of having a prohibiting circuit comprising a conditional and final prohibition circuits, a restart circuit: the predetermined instructions being of Takechi's battery charging controller stopping the constant-current charging when voltage of the secondary battery has reached a peak value after passage of a predetermined time period from start of the supplying of the first current; temperature of the secondary battery has been out of a predetermined range; or a predetermined time period has passed since start of the supplying of the first current, it is an inherent function of the charger

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controller to continuously monitor and prohibit the charging of the battery under predetermined adverse conditions, and MPEP 2100 states that the disclosure of a limitation may be expressed, implicit or **inherent**.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 2, as best as it can be understood at this time, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Takechi**, as described above, in view of prior art disclosed by applicant, **Siemer** [4820965].

Takechi discloses controlling the charging process of a battery. Takechi does not disclose a comparator to monitor the inequality between the battery voltage and predetermined threshold voltage.

Siemer discloses in fig.1 a voltage comparator 24 to detect a voltage of battery 14, compare it to a voltage reference 26, and determine charging needs. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include Siemer's teachings in Takechi's apparatus, and provide a voltage comparator in order to be able to detect, compare the battery voltage to a voltage reference, and accurately determine charging needs.

15. Claims 3, 4 and 6, as best as they can be understood at this time, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Takechi**, as described above, in view of **Ishizuka et al.** [hereinafter Ishizuka] [5410238].

Takechi discloses controlling the charging process of a battery. Takechi does not disclose a thyristor connected to an input of the battery being charged.

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Ishizuka discloses in fig.1 a battery 2, which starts charging when the start switch 14, allows a current to flow in the thyristor 12 so that the thyristor is rendered conductive. As the charging proceeds and when the battery 2 is placed in substantially fully charged state, the battery 2 is abruptly raised to a high temperature. In response to the temperature rise of the battery 2, the contact of the thermostat 3 is opened, thereby interrupting the charging current. The thyristor 12 is in turn rendered non-conductive and thus the charging operation is ceased. The patent discloses in the abstract that this enables recharging of a battery where a charge mode is selectively used depending upon the temperature of the battery being above or below a predetermined value. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include Ishizuka's teachings in Takechi's apparatus, and provide a thyristor connected to an input of the battery being charged in order to be able to use a charge mode selectively depending upon the temperature of the battery being above or below a predetermined value.

Takechi and Ishizuka disclose the claimed invention except for thyristors Th2 to Th6. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide thyristors Th2 to Th5, since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) and MPEP 2144.04.

16. Claim 5, as best as it can be understood at this time, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Takechi**, as described above.

Takechi discloses controlling the charging process of a battery where the charge-control unit 10 provides a relay-control signal for a gate of a Field Effect Transistor12, so that an exciting current flows to a coil 13a or stops, and a relay 13 is turned on or off. Takechi does not disclose a second FET. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a second FET, since it has been held that mere duplication of parts has no patentable significance

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unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) and MPEP 2144.04.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, as best as it can be understood at this time. The prior art cited in PTO-892 and not mentioned above disclose related apparatus, as best as it can be understood at this time.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is (703) 308-7305. If unavailable, contact the Supervisory Patent Examiner Mike Sherry whose telephone number is (703) 308-1680.

19. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

PFT

February 19, 2003



Pia Tibbits

Patent Examiner